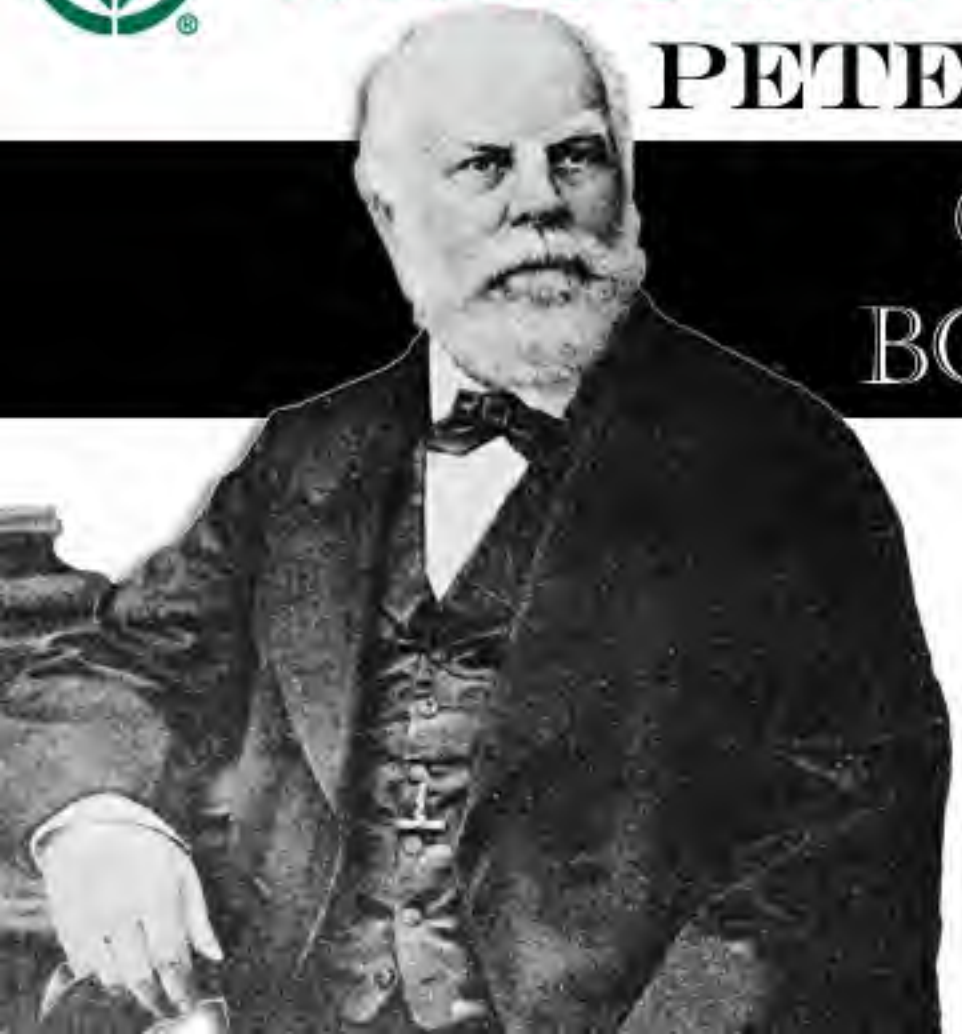
Missouri Botanical Garden
Peter H. Raven Library

George Engelmann Botanical Notebooks



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and evergreen oaks, I heard them singing lustily the celebrated coon-catching epic, "Sittin' on a Rail." The hero of the poem, it seems, was a daring darkey, who fearlessly, bravely, and stealthily, regardless of consequences, crept up to—

"De raccoon sittin' on a rail, an' sleepin' berry sound,
Den he cotch him by de tail, an' pull him to de ground."

But, as the sequel will show, in this instance, he was not "sleepin' berry sound." He was "a wide-awake coon." The night was more than usually pleasant, so calm and cool, and almost as light as day. Nature seemed to be at rest all serenely.

"The moon was bright, 'twas a shiny night,
In the season of the year."

I honestly believe we all felt as merry, if not as brave, as did either Earl Percy or Douglass, of "Chevy Chase" renown, as we filed off along the forest path. "With axe or brand, no braver band, advanced to face"—a coon.

The chief hunter rejoiced in the name of Long John, while his henchman was equally proud of Bogus. The next name on the roll was Festus—"most noble Festus"—followed consecutively by the valiant Soger; then, yours respectfully, W. T. H., and lastly, though not less famous, Vinegar, and whom all acknowledged to be "de best dog dat eber treed a coon."

Now, in many respects, Vinegar was a remarkable canine, and I say it advisedly; he was the leanest and mangiest pup that ever ran before a tail. Indeed, he seemed to be a "cur of low degree," and to have, as his looks indicated, a very dogged way of his own. Notwithstanding, he was, to his credit be it said, in possession of more than ordinary dog talents in circumventing rats, rabbits, 'possums, and coons, and was honored accordingly. Bogus and Vinegar were bosom friends by day and bed-fellows by night, and had for several seasons lived and loved together. Long John was considered a good man, and I believe he was; he was (what I believe they call), a Gospel expounder on the plantation. In some respects he resembled Saul, who, "from his shoulders and upwards, he was higher than any of his people." He was also a man of might in his way, having had some desperate encounters, as he described them, when "wreslin' wid de spirit, befo' he was 'ligeous." When I remarked that I thought the spirit must have been a plucky one that durst attack a man like him, he replied, "De dibble wusn't half so plucky as he 'peer'd to be, wen he wus well tackled; he mostly got de wust of de scrimage." Just fancy Long John and the other black fellow in a tussle. Well, he was just as good and useful on the coon-path as he was terrible when on the war-path.

After wandering about some time, through bogs and swamps, until I was weary and wet, in fact, I was in a shocking plight, Vinegar had the credit of treeing a coon. Bogus, approvingly and with much gusto, remarked, "Binegah am de most cunnin' ole man dat eber wag a tail, shuah." Then was heard such a hubbub, yelling, hooting, howling, and barking round the tree as was never heard before from four men and a dog. All the time the chips flew fast and furious, as they vigorously applied their axes to the butt of the tree. Poor blackamoor! how much they seemed to enjoy the sport, and how I laughed to hear them cracking funny jokes at "de gemman up de tree," whom they invited to come down "an' 'zamin' massa Binegah mouf, case he got de toof-ache, shuah!" I really pitied the poor creature, and hoped he would escape. It did not seem a fair fight—five to one. The rotten tree soon yielded to their efforts, and began to lean over. The excitement seemed to increase as it fell, when to the astonishment of all hands, three coons scampered out of a hole, and together fell foul on Vinegar. Thus beset, the beleagured "Binegah" seemed to be getting the worst of it, until Festus interfered. Aiming a blow at one of the coons, he missed it, and buried his axe in the dog's side, and disemboweled poor Binegah.

"Great Goddlemighty!" exclaimed Bogus, and looking at Festus, said, "See what you niggah fool dun, you murdid poo' Binegah shuah!" In an instant Bogus was down by the dog, vainly attempting to close up the frightful gash in his companion's side. The big tears flowed copiously from the master's eyes, and fell fast upon the face of his dog, whose life-blood was welling away.

In the mind's eye I see the picture now, and a more pitiful sight I seldom have seen, than the poor weeping negro rubbing his rugged cheek on the dog's, and sobbingly commiserating with his dying friend, and exclaiming, "Poo' Binegah! ole man, you dun fo' now! No mo' rats, no mo' possum, no mo' rabbit, no mo' coon, no mo' nuffin,—an' no mo' Binegah! Dis chile will miss de poo' fellow! Sally, miss de poo' fellow!

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and de chill'n miss de poo' fellow! Eberybody miss de poo' fellow! Goddemighty, bress us all!"

After gently patting his dead friend for the last time, and throwing some leaves and grass over him, he looked steadfastly at the most ignoble Festus, and pointed at the blood-stained grass, but never a word said he. Festus only laughed, which stirred up the hot blood of the tamed savage, and ended in a passage of arms, or rather heads, or more correctly, butt and counterbutt. Quick as thought, Bogus ran his head butt into the stomach of Festus, and sent him sprawling in the grass, who, on gaining his feet, returned the compliment, and staggered Bogus. Then stepping in between, as seconds are supposed to, Long John supported Bogus, while Soger did the like service for Festus; when it was decided, according to the *code duello*, their wounded honors had been redressed in a chivalric and noble manner, becoming to gentlemanly combatants, they shook hands, feeling assured their fair fame was untarnished.

After all, it was a more sensible manner of deciding nothing than white fools usually take, when they run a muck at each with knives or swords, or try to shoot bullets or buckshot into each other's hides.

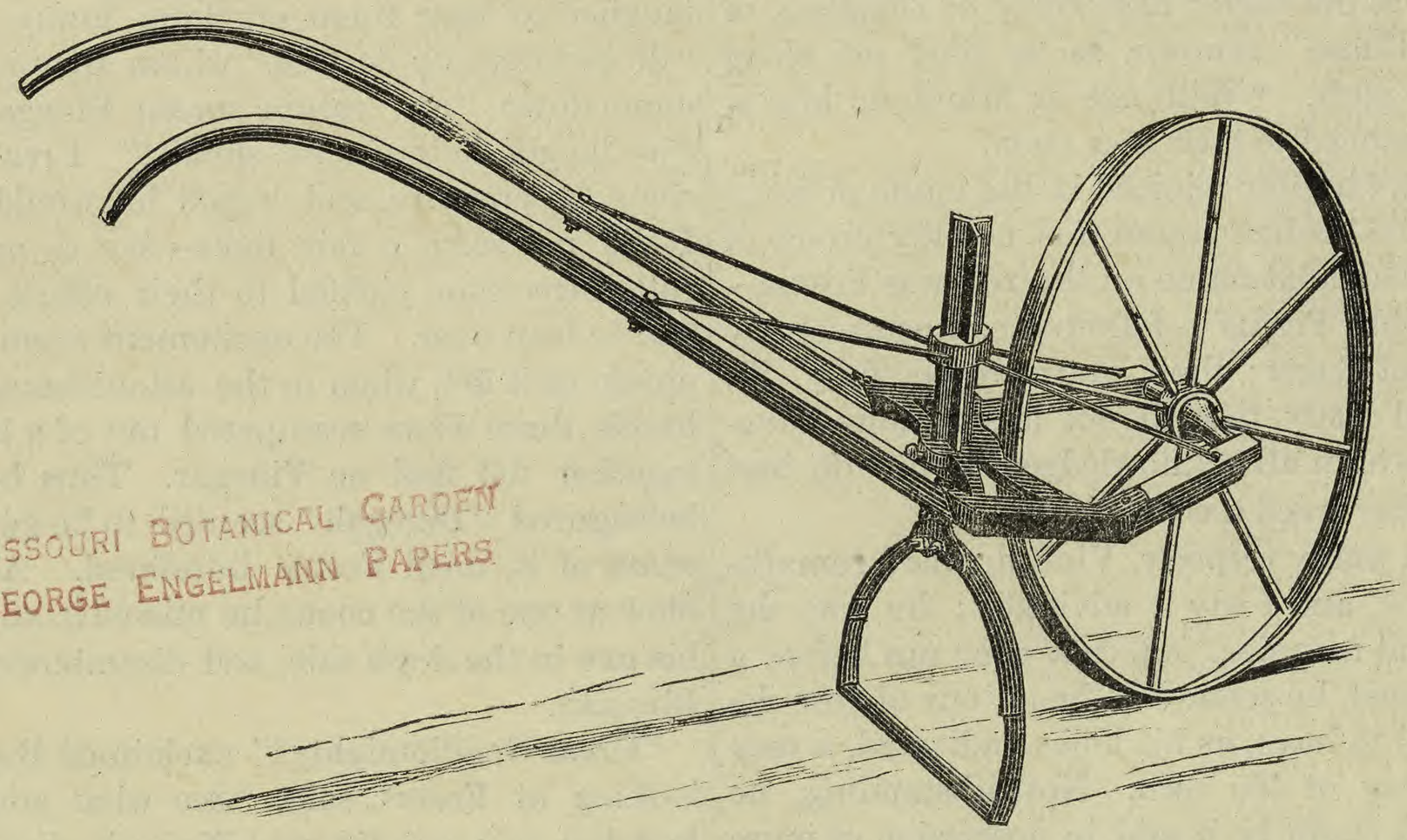
The raccoons had stampeded, as might be expected, while "the moon with her sober countenance" placidly looked down at the scene where the jasmines and crab apples bloomed profusely.

In conclusion, it only remains for me to say that my better half informs me that in her native State, New Jersey, she remembers when a girl, in the neighborhood of Mount Holly, seeing quantities of the Garland Crab Apple. So it is probably nearer Philadelphia than you are aware.

EDITORIAL NOTES.

WATERPROOF PACKING PAPER.—Dissolve 1.82 lbs. white soap in 1 quart water. In another quart water dissolve 1.82 ozs. troy of gum arabic and 5.5 ozs. glue. Mix the two solutions, warm them, and soak the paper in the liquid, and pass it between rollers, or simply hang it up to drip.—*Scientific American.*

BEECROFT'S WHEEL HOE.—Man is a pretty smart sort of a creature, and has managed in various ways to evade the primeval curse with tolerable success. The old-fashioned hoe we have, however, regarded as just about the same as it was in the days of Adam, and we have an absolute surety that when he went out to fight the thorns, thistles, and noxious weeds with one of these back-achers, he must, more than at any other time, have felt that his rank disobedience, or giving way to feminine persuasion, which ever it was, did not pay at all.



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We have watched continually for some good thing to supersede this abominable implement, and have from time to time given sketches of wheel hoes of various kinds. The present one (see illustration) is certainly the best of all we have seen. It indeed reduces hoeing to an amuse-

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N. 250

Opuntia Bigelovii Engelm ~~A shrub erect about with a thick bole~~
~~simple trunk~~ Roots stout, ~~simple below~~, a covered only with dead joints
loosely adhering, with short deeply branching upwards, ultimate joints subglobose and
mostly deciduous, tubercles short rounded hemispherical; spines
very numerous, covered with yellowish sheaths, flowers
pale is dilute, apparently purple, petals about ovary with 30-40
~~white~~ somewhat brittle areolae, petals obt spatulate obovate,
stigma 7-8 each fruit elevate, rough fleshy con drying,
with a very deep umbilicus and small seed cavity, sterile or with
one or very few regular, turtle seeds. - Cant. of Bail R. Rep. IV. 50.
t. 19.

East side of the San Bernardino Mts hilly mesas of the desert,
east more in the desert valleys, C.C. Parry. S. B. Parish on sandy
slopes on the eastern edge of the desert and into Arizona. - A Arizona
8-12 feet, ~~rarely~~ in California rarely over 4-5 feet high, ~~stout~~
the woody skeleton forms a wide tube with ~~small~~ close reticulated
corrugated to the close set tubercles; and rarely externally into the
branches. Seeds orbicular 1/2 line diam, 1 line thick, with a rather
narrow commissure. - A peculiar feature of this species above
the annually deciduous mostly globular ultimate joints, probably
those of later summer growth with withering adhere mostly by the
strong basal spines to the plant itself or drop to roll on the ground
resulting striking not, but mostly driven about and rolled into
balls by the wind, a fact ~~and~~ due to undue coast.
The paucity of seed is a curious feature of this curious species.

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bark of P. australis is somewhat similar but the plates are much larger.

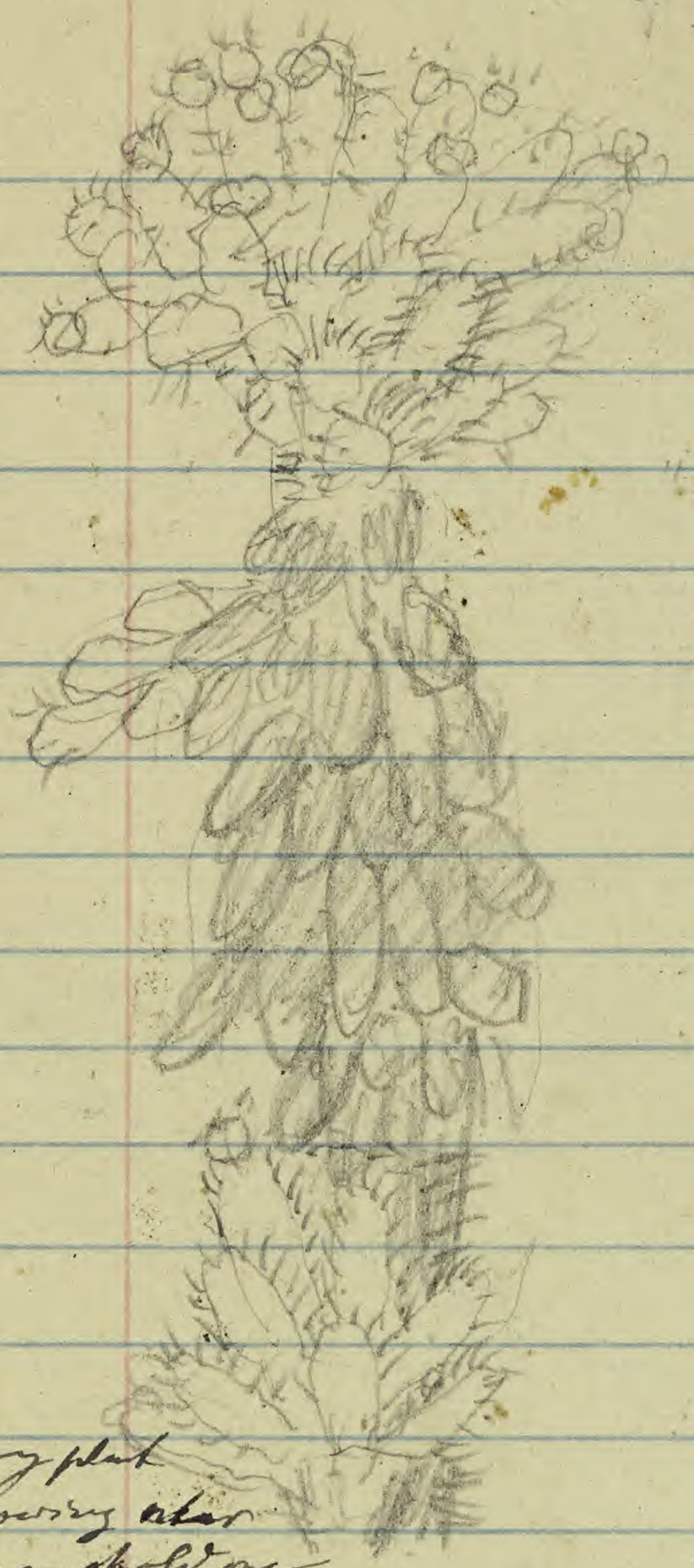
The timber is excellent, heavy, very tough and more resinous even, than that of P. australis, with it resembles; of a striped yellowish brown and paler resin colour (the wider inner portion of each ring, formed earlier in the season being brown, the ~~dark~~ outer narrower part of later growth, paler); fibre coarser than in australis and more tenacious. It grows rapidly, at least in its youth, a tree of 22 inches diameter and about 140 years old had in the stump diameter 8½ inches of heartwood with 74 annual rings and white sapwood 2½ inches thick, with 60 to 70 rings; another of over 3 feet diameter, 109 feet high and 200 years old, had a radius of 17 inches heartwood with about 140 rings and 3 inches of sapwood of 60 rings. Thus the average rings of the heartwood are over 1/3 lines and those of sapwood ~~dark~~ (because of later growth) about ½ line ~~thick~~ wide.

The ~~foliage of~~ leaves of young trees are more frequently in twos, in older ones as often in threes; those ~~that grow~~ of trees from swampy soil are apt to be shorter than others; the structure in all of them is the same.

Our species is closely allied to P. Cubensis (see page →) and further study of the latter may possibly prove them to be nothing but geographical varieties. Meanwhile the constantly three-leaved foliage, the larger number of involucral bracts of the smaller male flowers, the smaller cones with smaller, shorter-winged seeds distinguish Cubensis. Of the bark, the timber or of behaviour of the young cones in that species we know nothing.

~~Sect~~

P. Elliottii was imperfectly known to and ~~by~~ Elliott by him named P. Taeda, later botanists



young plant
growing after
base of old one

Opuntia Bigelovii 4" high

White water Desert
Nov 10 1880

flowers said to be yellowish, greenish brown
outside. It sometimes called
Jumping Cactus, said to jump
at men & beasts like a rattlesnake

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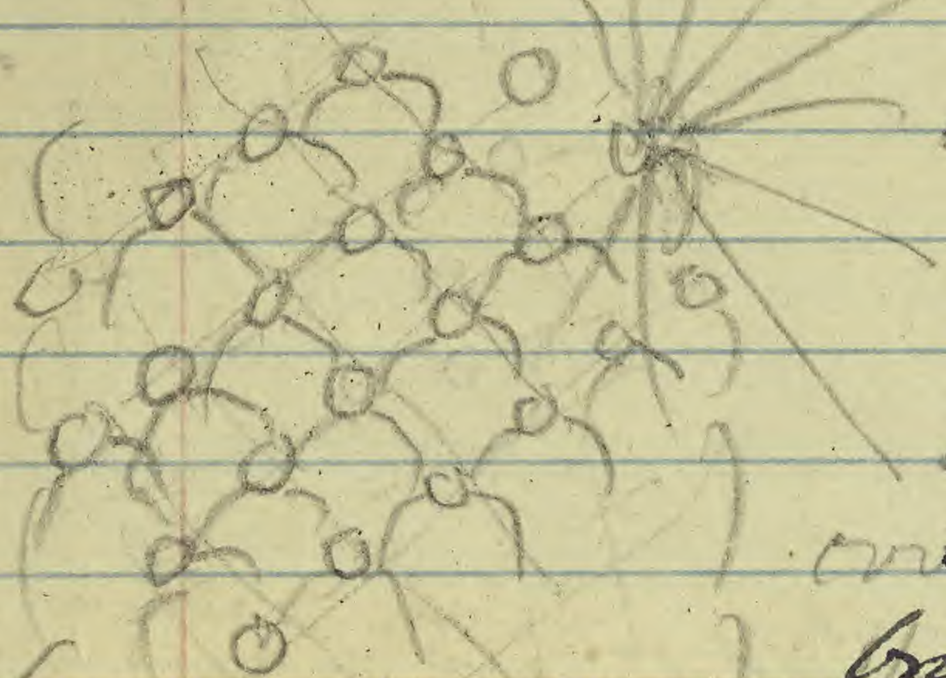
White water Canal Nov 10 1880

Op. Bigelovii 3–5' high

¼" stalk, covered to base with brown
spines, — young joints with white glistening
spines, joints 1½ inch stalk 1½–2–6" long
Spines 8–16 [illegible] areolae terminal on
tubercles,
hemispherical.



Lower part of
trunk densely
covered with
brown spines, naked
or old joints dead
adhering still.

Petals joints 5–6 obtuse, lanceolate
yellow joints short, globose or ovate globose
1½–2" long, deciduous, the
stiky wool — fruit nearly
proliferous, and often sterile

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Von Ruhl $100.—

4 Photographic [illegible] Sept 18—

Box from San Bernardino — self 1 75

16 Breakfast 20 Ferry & Cars 20 65
& hack cars 25

17 Tea & Fr. 20 Supp 50 boots 10 grips 10 90

18 Packing box 75 Breakfast 65 — Lunch 1 — cars 10 2 50

2 Carriage 1 fork 12 1 Corkscrew 14—

box 75 Bookcase & tacks 50. Express 1.75 2 25

Writing Photographs 5—

Sleeper Car to Ogden 6—

19 Breakfast 50 papers 15 fee 25 50 1 40

Hotelbill 7.50 writing 90 carriage 1. 9 40

Lunchbasket & contents (Carry 1 25

Lunch at Sacramento 60 60

20 Breakfast at Humboldt 1—

Telegram to Salt Lake 1 25

21 fee — Car 25 sleeper to Omaha 8. 8 25

Dinner at Evanston 1—

22 Breakfast at Rock creek 1—

23 " " Grand Pacific Cafe 1 25

Omaha to St Louis 12.85 Meals 10 12 85

Sleeper 2 2.50. Meals 2.50 2 60

24 fee 25 Car 25 on Omnibus home 50 75

98 40

129 25
98 40
30 85
30 15

El Lt

Not acct for 85 cts

balance
Cash 30.15
cash — lost 70 c.

98.40

MISSOURI BOTANICAL GARDEN PEABODY ENGELMANN PAPERS

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Opuntia Bigelovii

Rec Febr 2d
Ans — 19 San Bernardino, Cal, 1-22-80-

Dr. George Engelmann,

(thickness?
skeleton?)

Dear Sir,

By the kindness of Mr. Lorenz Watson I have had the pleasure of reading your interesting letter concerning certain cacti about which I had written to him. As I had occasion a few days ago to visit the neighborhood in which the Cylindropuntia grows I availed myself of the opportunity to procure a few specimens which I mail to you today. They include a part of a fruiting joint, several detached joints, some rooted, & joint, also, for comparison, part of a joint of O. Echinocarpa or, at least, what I have supposed to be that. There is also a specimen of the Mamillaria, which is certainly undescribed in Bot. Cal. I presume the frost will affect them, but I hope

not so as to render them unsuitable to you - Should you desire further specimens I will with pleasure send them later in the season, as of one or two other Cacti of which I would like to know your decision -

A casual ~~glo~~ examination of the specimens of Cylindropuntia sp. sent will, I think, satisfy you that I was correct in calling them joints, but I will venture to call your attention to a few points in which this species differs from all the other Cylindropuntias of this region. The ~~under~~ outline in the margin may give some idea of the general plan of the plant. The trunk is hardly long enough in proportion to the branches, and there are none of these at the top stems I have represented.

O. Bigelovii

The other Cylindropuntias are long

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joined and many joined. This shows few, short, very clavate joints, generally two, sometimes three jointed articulations. The main stem is very much thicker than in other species. There as they grow old, become bare below, the spines & ~~of the~~ smaller lower joints dying and dropping off; in this species the spines and lower joints die to a greater height, but remain firmly attached, by the spines adhering! being never shed, & giving the stem for a half or one third of its length a rusty, dead appearance. Not of many stems and plants I have never seen one branched much lower, in proportion to its size, than I have indicated above. In one other species the ligneous frame extends to the joints; it is branched like a tree; in this the woody structure is confined to the lower part (about 3/4) of the trunk, there being many orifices in it where the joints are articulated,

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And the joints being entirely destitute of any woody frame. The character of the fruit will show for itself: it is produced sparingly, & by a few individuals only, but is also quite sterile, while our other species are crowded with fruit, much of which is abortive. I have never seen it in flower or while making its young growth. This is evidently perfected early, as by Sept. the abortive joints have become seperated from the fer- -tile ones, though still in contact with them. At this season of the year they are seperated from 1/4" to 1/8" inch, being maintained in place by the inter locking of the spines. They are very easily detatchable, it being almost impossible to touch one with the finger so lightly that it will not adhere & any attempt to shake it loose only causes the spines to penetrate & attach it

HLC

3.

more firmly. Horses and cattle soon learn to shun this property, and give the plant a wide berth.

This extreme pungency and strongly barbed character of the spines, causing the loose joints to so easily and steadfastly adhere, is very suggestive in connection with their detachable ~~character~~ =ity. Where the cactus abounds these joints strew the ground like burrs beneath a prolific chestnut tree. Under the older plants they are very thickly scattered, there being generally several younger plants of various sizes sprung from rooted balls. The detached joints are sometimes usually round, like those shot, but sometimes one can be found two or three inches long. I have found them where they must have rolled along the ground, a gentle declivity, an eighth of an

mile. Small piles accumulate when the conformation of the surface favors, but the larger heaps of which I spoke in my former letter, I find, are the work of a small rodent, the "chaparral rat," which heaps up a bushel or two of the balls, inter mixed with sticks, for a nest. The same animal also uses the fallen fruit of other species of cylindropuntiae It would be interesting to know how he does so without being injured by the H spines.

This species of cactus seldom exceeds three or four feet in height, four feet being the highest I have ever seen. They are quite abundant on the hills ~~sides~~ on both sides of the Mirage (San Bernardino) desert, San Diego Co. This is the route by which the Southern Pacific RR goes to Ft. Yuma. They are first found ~~of~~ opposite White water

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Station, about 20 miles East of the
Summit. I have been but 12 miles
further, & they still continued. They
never grow in the desert itself, as
all the other species thus do, but
confine themselves to the hills,
— gravelly, not in rock crevices —
where patches of them occur as
far as
ten or fifteen miles back, as high
^ as that they are frequent light
fruits. I neglected to state that
the permanent joints & the fruit are
very finely attached.

I could hardly think this
cactus, or its peculiar habits had
escaped the attention of botanists,
had they not been deemed to be
strange & as high an authority
as yourself. Dr. Parry collected
in this neighbourhood and must
have seen this plant.

Is not the rooting of sterile
fruit very rare in nature?
I have never seen an instance

of it. But the rooting of them
shed joints is very common, and
is the method by which this
species is propagated.

With respect to the Manzillonia
I can give you few particulars
which are not evident upon
inspection, as I have had very
little chance to observe it. It
grows at Ivanpah, San B'dino
Co, and is very scarce.
I have made arrangements by
which I hope to obtain a
number of specimens, and if I
succeed will inform you of any
additional points they may
suggest.

Hoping I have not occupied too
much of your time, I remain,

Yours truly,

Sam'l B. Parish

P.S. I have about a dozen specimens to the Natl's on,
am written them a short note about this cactus.

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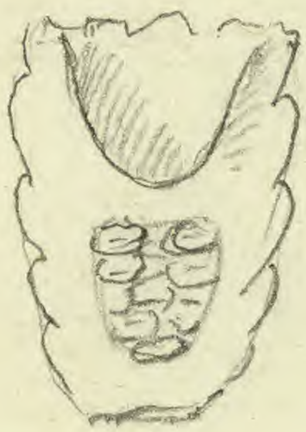
Opuntia Bigelovii — March 30th 1881

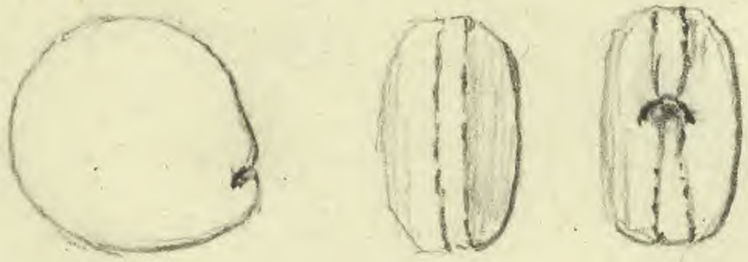
White Water Desert, Calif. Nov 1880



50–60 areolae on tuberculate rather fleshy fruit
umbilicus always very deep

fruit with a single seed frequent

× 4



seeds very regular, with a rather broad commissure

seed 1/2 or at most 1 3/4 lines wide

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Peirce & Curtis
DRUGGISTS
Corner 11th & Market Streets
Opposite Union Market

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Opuntia Bigelovii

White water Desert, Calif

Jan 22 1881

Nov. 10 1880

flower from a sterile fruit

3 petaloid sepals petals yellowish

3 insertion of stamens

7 red (always?) stigmas, capitate

style not thickened at base

(in dry specimen)

fl. about 2 inches diameter

Seeds soaked and opened:

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Henry T. Rohlfing,

APOTHECARY,

No. 2600 Laclede Ave., S. W. Cor. Jefferson Ave.,

ST. LOUIS, MO.

No. ..... *Date,* *187*

℞

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Geo. Engelmann, M. D.,

No. 3003 Locust Street.

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Opuntia Bigelovii Feb 3 1880

corolla fallen from a very fruit

stigmas

Seed coat of San Bernardino on the Railroad

S. B. Parish
Jan 1880

probable reconstruction

sterile fil, 30-40 ovules

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ALEX. LEITCH
POTHECARY & PHARMACEUTIST
COR. 4TH & OLIVE STS. ST. LOUIS.

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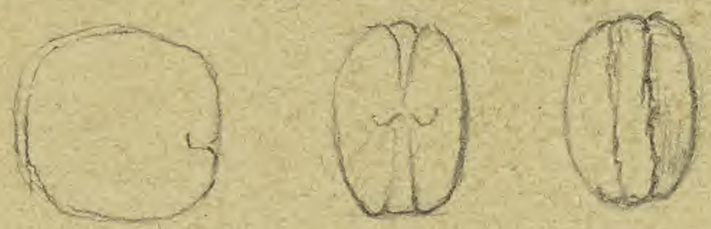
March 26 1880.

Opuntia Bigelovii

San Bernardino Desert

Dr Parry 1876



× 4

Single seed & a fruit

Diam 3 mm, thickness 2 mm

S. D. Parish

probably O. Bigelovii

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MISSOURI BOTANICAL GARDEN

H. W. BARKHOEFER & CO.,

DRUGGISTS & PHARMACISTS,

No. 2934 Olive Street, S. E. Corner Garrison Avenue,

ST. LOUIS, MO.

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O. Bigelovii !

Matthaeus 1853

Op. Bigelovii

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